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The US DOE Joint Genome Institute Microbial Genome Program.

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JGI is a leader in performing sequences to support the number of U.S. Department of Energy (DOE) Microbial Programs. The Microbial Genome and GTL programs were established to determine the complete genome sequence of a number of microbes that may be useful to DOE in carrying out its missions. Another program was launched to study hard-to-culture individual microbes and microbial communities. They are very difficult to study but play critical roles in the Earth's ecology. Community Sequencing Program recently started by JGI (<http://www.jgi.doe.gov/CSP/index.html>) also includes sequence and detailed analysis of the genomes of the different representatives of the microbial world.

A workflow procedure for all microbial programs has been formalized to process samples from DNA prep through sequencing, assembly, finishing, quality assurance, annotation and analysis. To date, the JGI has sequenced over 100 microbes to draft quality, finished over 60 and is currently working on more than 100 additional microbial projects. Most projects are now targeted for complete finishing.

The Integrated Microbial Genomes (IMG) system was created to provide a framework for comparative analysis of the genomes sequenced by the Joint Genome Institute. Its goal is to facilitate the visualization and exploration of genomes from a functional and evolutionary perspective. Currently IMG includes 618 genomes from archaea to eukarya sequenced by JGI and other centers.

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